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Funkwerk Koepenick Transmitter Construction

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THIS IS UNEVALUATED INFORMATION

1. Until the middle of March 1953, transmitter construction at Funkwerk Koepenick was handled along the following schedule:
 - a. Development of the transmitter was carried out in the Development Division (Area I) of the enterprise.
 - b. The next step, pre-mounting (Vormontage), was executed in the Production Division of the works under Hans Joachim Schidlowski. Pre-mounting included fabrication of the large construction elements to go into the chassis of the transmitter (Sendergestell): variometers, condenser batteries, wave range switches, measurement devices, tube holders (Roehrentoepfe), water resistances.
 - c. The next step, mounting (Montage), was carried out in building number 10 of the development division of the plant, where the laboratory workshop (TLIS) under Irwin Ingert is located. The essential part of the mounting is the wiring (Verdrahtung, Verschaltung) of the transmitter.
 - d. The mounted transmitter then was transferred for tests to the Testing Field, headed by Lilli Lange, who is under the direct supervision of Technical Director Kurt Pfeil.
2. In mid-March 1953, the above schedule was changed to the extent that pre-mounting was transferred from the Production Division to Ingert's workshop, where pre-mounting as well as mounting is now carried out. Thus, transmitter construction has been removed almost completely from the Production Division and transferred entirely to the Development Division of the plant. Only those individual parts which require extensive rolling, milling, stamping or galvanizing operations are still fabricated in the Production Division. This, however, is to be changed by the end of 1953, at which time everything pertaining to transmitter construction is to be handled in Ingert's workshop. The Production Division will be engaged exclusively in the fabrication of instruments developed in Area II of the Development Division, mainly measurement devices.
3. The following is a list of all projects under construction in Ingert's workshop in mid-May 1953.

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- a. Three intermediate stages (Zwischenstufen), each with two 1,000 watt tubes AS 1,000. They are for three twin halves² to be constructed by Funkwerk Kopenick. The status of the three intermediate stages is as follows:
- (1) One intermediate stage is 85 percent complete. ⁴ Work has been held up by the lack of water resistances and double-walled tube holders made of drawn copper;
 - (2) One intermediate stage is 75 percent complete. Progress has been held up by the lack of the same parts as above and, in addition, of all oscillatory circuit condensers (Schwingkreiskondensatoren), which are to be delivered by the Kescho firm.
 - (3) One intermediate stage is 70 percent complete. Progress is held up by the lack of all parts mentioned above and, in addition, of a wave range switch. This latter part is now under construction in Engert's workshop.
- b. Three pre-amplifier stages (Vorstufen), each with two 20 kW tubes RS 720. They are for the same twin halves. The status of these is as follows:
- (1) One stage is 95 percent complete; only part of the wiring is not yet finished.
 - (2) One stage is 90 percent complete; its wiring is about as far along as that of the other stage. A water resistance is still missing.
 - (3) One stage is 60 percent complete. No wiring has been done yet; two water resistances and all oscillatory circuit condensers are missing.
- c. Two ultra-short wave pre-amplifier stages of 250 watt. They are for two ultra-short wave broadcasting transmitters of 100 mcs. which are to be located in Berlin. The order for their construction was given by the Ministry for Post and Telecommunications. The order included construction of three more transmitters of the same kind, which are to go to Dresden, Leipzig and to an unknown destination. The transmitters were developed in TBU 2 (Laboratory for Ultra-Short Wave Installations) by Wilhelm Lebeck⁵ and in TBU 1 (Laboratory for Television) by Willi Zeletzki⁶. Development was carried out in such a way that the development drafts can be used either for the construction of the mentioned ultra-short wave broadcasting transmitter of 100 mcs. or for the construction of a 200 mcs. audio transmitter for television. Construction of the two pre-amplifier stages mentioned above and the two final stages mentioned below is being carried out by Engert under the supervision of Zeletzki. Both pre-amplifier stages are about 80 per cent complete; wiring has not yet started. Progress is held up because the dimensions of the two chassis obtained from a delivery firm are 10 millimeters too short. This requires changes in the arrangement of the parts.
- d. Two ultra-short wave final stages of 3 kW. They are for the same two Berlin ultra-short wave broadcasting transmitters as the pre-amplifier stages mentioned above. They are 40 percent complete. It is doubtful whether the government order requiring that the two transmitters be completed by September 1953 can be carried out. After completion the two transmitters are to be placed in the antenna sheds of the Berlin Hubertus twin transmitter; the ultra-short wave antennae will be mounted on top of the twin antenna towers.

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- e. An induction heat generator of 50 kW, is 50 percent complete. It will go to the Iron Research Institute in Hennigsdorf, where it is to be used for the vacuum smelting of iron and iron alloys. It is expected to be able to smelt 1,500 grams of iron in three minutes.
- f. A current supply installation for the heat generator mentioned above. The installation is 90 percent complete.

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2/ [] Comment. The transmitters mentioned here are the only ones which are now under construction at Funkwerk Koepenick. All other transmitter projects are either still in the "technological" (material procurement) or developmental stage or are under construction outside the plant - such as SL 2, under construction in Koenigswusterhausen [] In particular, no medium wave transmitter with a power exceeding 50 kW - except the twin halves mentioned here - is under construction.

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3/ [] Comment. [] The German nomenclature of the stages in the high frequency part of a "Zwilling Halbzug" (Twin half) is as follows:
1. Steuerstufen up to 50 Watt, including quartz oscillator, buffer, doubler, etc. 2. Zwischenstufe from 50 Watt to 1 kW with two AS 1,000 tubes. 3. Vorendstufe from 1 kW to 20 kW with two RS 720 tubes. 4. Endstufe from 20 kW to about 250 kW with four RS 576 tubes.

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4/ [] Comment. The percentages are estimates made by Engert.

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